

NOTE

Torymidae (Hymenoptera) new to Washington State

Located in south-central Washington State, the 560 square mile Hanford Site has been closed to the general public since 1943. Originally acquired by the United States federal government as a site for the production of plutonium for weapons production, Hanford is currently administered by the Department of Energy for nuclear waste management, environmental restoration, and research and development.

During the period 1994–95, a biodiversity analysis of insects was conducted at the Hanford Site, primarily on the Fitzner-Eberhardt Arid Lands Ecology Reserve (ALE). The ALE, located in Benton County (latitude 46°N, longitude 119°W), occupies just over 100 square miles in the south-western portion of the Hanford Site. The ALE was established in 1967 to preserve “portions of vegetation types that once covered a great expanse of the West” (O’Farrell. 1973. *Pacific Search* (July): 3–8). The vegetation type referred to by O’Farrell is primarily the shrub-steppe system, a pre-European settlement vegetation consisting mainly of shrubs, perennial bunchgrasses, and a variety of forbs. Typical shrubs include several species of sagebrush [*Artemisia* spp.], rabbitbrush [*Chrysothamnus* spp.], and bitterbrush [*Purshia* spp.]. Grasses include bluebunch wheatgrass [*Agropyron spicatum* (Pursh) Scribn. & Smith], Idaho fescue [*Festuca idahoensis* Elmer], needle-and-threadgrass [*Stipa* spp.], and Sandburg’s bluegrass [*Poa sandbergii* Vasey]. Some of the more commonly encountered perennial forbs include species of lupine [*Lupinus* spp.], desert parsley [*Lomatium* spp.], buckwheat [*Eriogonum* spp.], balsamroot [*Balsamorhiza* spp.], and milkvetch [*Astragalus* spp.].

During the two-year study, over 30,000 insect specimens were collected, prepared

for identification, and sorted to ordinal level by Richard Zack. This note documents the first Washington State records for 8 species of the parasitic wasp family Torymidae, increasing the number of torymids reported from 14 species to 22 (Grissell 1976. *University of California Publications in Entomology* 79: 1–120; 1979. *Catalog of Hymenoptera in America North of Mexico* Vol. 2: 748–768; 1995. *Memoirs on Entomology, International* 2: 1–470). Currently 176 species of Torymidae are known in America north of Mexico. Most of the new-found species are widespread in the western states but have not been recorded previously for the state of Washington. Additionally, in this note, we provide new distribution records for 5 species known to occur in the state, and the remaining 9 reported species are listed. All specimens were collected by sweeping vegetation and are housed at the James Entomological Collection, Washington State University. Specific locations for individual specimens within ALE are available from Richard Zack. Unless noted in the list below, data for *Torymus* is from Grissell 1976 and for other taxa from Grissell 1979 and 1995.

First-documented records for species from Washington State (taxa preceded by an asterisk (*) are first report of genus):

**Diomorus zabriskii* Cresson: widespread throughout the United States and known from British Columbia. This species is associated with nests of Sphecidae (*Extenuius*, *Crossocerus*, *Rhopalum*) and Anthophoridae (*Ceratina*).

Monodontomerus viridiscapus Gahan: widespread from southern British Columbia to Mexico. This species is associated with several genera of Lepidoptera (*Orgyia*, *Malacosoma*, *Eucheira*) and their ichneumonid parasites (*Gambrus*, *Phytodietus*, *Scambus*).

**Pseuderimerus mayetiolae* Gahan: known only from California. This species is associated with the Hessian fly (*Mayetiola destructor* (Say)).

**Pseudotorymus lazulellus* (Ashmead): widespread but spotty distribution from eastern United States and southern Canada as far west as Colorado. This species is associated with eurytomid gall-formers (*Tetramesa*) in grass stems, cecidomyiid gall-formers (*Dasyneura*) on composites, and unknown hosts in flower heads of *Trifolium*.

Torymus aeneoscapus (Huber): widespread in the Western United States (Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, and Wyoming). This species is associated with cecidomyiid galls (*Diarthromyia*, *Rhopalomyia*) on *Artemisia*, *Chrysothamnus*, and *Salvia*.

Torymus capillaceus albitarsis (Huber): widespread in the western United States (eastern Texas; northern areas of New Mexico, Arizona, and California; and Kansas, Colorado, Utah, Nevada, and Idaho). This subspecies is associated with cecidomyiid galls (*Asphondylia*, *Lasioptera*) on *Chrysothamnus*, *Helianthus*, *Aster*, *Ratibida*, *Ambrosia*, and *Mimosa*.

Torymus kinseyi (Huber): widespread in the Western United States (California, Idaho, Montana, Nevada, and Utah). This species is associated with tephritid (*Trypeta*) galls on *Chrysothamnus*, cecidomyiid (*Diarthromyia*) galls on *Artemisia*, and unknown cecidomyiid galls on *Chrysothamnus* and *Erigeron*.

**Zaglyptonotus schwarzi* Crawford: widespread from eastern United States to Idaho. This species is reared from Lepidoptera (*Isophrictis*) in sunflower (*Helianthus*) heads and may attack weevils (*Desmoris*) in the same plant; it has also been reared from tephritid seed maggots in flower heads of *Vernonia*.

The following taxa, previously reported for Washington State, were also collected on the Hanford Site:

Microdontomerus anthonomi (Crawford): widespread throughout the western United States. This species is associated with weevils, bruchids, tephritids and their braconid parasites in composite flower and seed heads (Turner et al. 1990: Pan-Pacific Entomologist 66: 162–166).

Monodontomerus montivagus Ashmead: widespread throughout southern Canada and the United States south into Mexico. It is associated with many solitary bees and some wasps (e.g. eumenines).

Torymus coloradensis (Huber): widespread in the western United States, but previously known in Washington from only one location in Whitman County. This species is associated with cecidomyiid galls on *Artemisia*.

Torymus koebelei (Huber): widespread in the western United States and upper Mexico but previously known in Washington from only one location in Klickitat County. It is associated with cecidomyiid galls on *Baccharis*, *Artemisia*, *Erigeron*, and *Chrysothamnus*.

Torymus thalassinus (Crosby): widespread in the western United States but previously known in Washington from only two locations in Franklin County. This species has been reared from the stems of grass species in 6 genera and is probably a parasite of *Tetramesa* (Eurytomidae), a gall former in grass stems.

The following 9 species have previously been reported from Washington State (Grissell 1976, 1979): *Torymus bedeguaris* (Linnaeus), *T. bicoloratus* (Huber), *T. cecidomyiae* (Walker), *T. chrysochlorus* (Osten Sacken), *T. citripes* (Huber), *T. fagopirum* (Provancher), *T. longistigmus* (Huber), *T. solitarius* (Osten Sacken), and *Monodontomerus aeneus* (Fonscolombe).

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